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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,971

11/13/2006

Norbert Rodler

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EXAMINER

MUI, CHRISTINE T

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

12/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,971	Applicant(s) RODLER ET AL.	
	Examiner CHRISTINE T. MUI	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-15, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 25 September 2008 has been entered.

Response to Arguments

2. Applicant's arguments, see REMARKS, filed 25 September 2008, with respect to the rejection(s) of claim(s) 10-19 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of USP 5,906,672 to Michaels et al.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 10-13 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 5,906,672 to Michaels et al (herein referred 'Michaels').

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5. Regarding claims 10-13 and 18-19, the reference Michaels discloses an oxygen concentrator which comprises of a first molecular sieve bed connected to a four way valve (i.e. a cross over valve) which enters a second sieve bed to a pressurized air source or to a vent to the atmosphere. Both sieve beds are joined at the outlet end to a product reservoir through a gas product conduit. The sieve beds are of a physical separation medium which absorbs nitrogen and enriches oxygen from the air gas supply from a compressor, which is connected to a drive motor. The physical separation medium is an aluminasilicate composition more specifically a molecular sieve is sodium or calcium form of aluminasilicate. A control means is provided to cyclically cause the cross over valve to move between the two sieve beds and the concentration equalization valve between the two beds. An oxygen sensor that registers the oxygen concentration of the product gas from sieve beds is provided in the product tank and communicates a sensed value to the control mean. In operation, a gas mixture is introduced into the inlet of the first bed from the compressor connected to a drive motor. The gas mixture then adsorbs gas in the bed of a finite zone size and moves through the bed toward the outlet of the first bed. Concurrently, the second bed is vented to the atmosphere to cause purging of the nitrogen enriched molecular sieves. The concentration between the two sieve beds are then equalized by the opening of the concentration equalization valves allowing the product enriched gas to flow from the first bed to the second bed. During the concentration equalization period, one bed is evacuated while the other is being a pressure set point which drives the flow between the beds. Before the product enriched gas is moved from the first bed into the

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evacuated second bed, the cross over valving means is actuated in a reverse position discontinuing the supply of gaseous mixture to the first bed and commences evacuating it and concurrently discontinues evacuating the second bed and commences supplying it with the gaseous mixture. The flow path of the gas that connects the outlets of the first and second bed has a gas flow capacity, which is interpreted to be a defined volume, which is sufficient to bring the first and second beds into correspondence in oxygen output (see abstract, column 3, lines 32-column 4, line 23, column 5, line 16-column 7, line 60, Figure 1, claim 1). It is interpreted by the examiner that the measurement circuit and the reaction circuit are the first and second sieve beds, respectively. Furthermore, the sample loop is considered to be the cyclic exchange of purging and flow of product enriched gas by actuating of the four way valve (i.e. cross over valve) and the concentration equalization valve, switch-over branch.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claims 14-15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michaels.
9. Regarding claim 14, the reference Michaels discloses the claimed invention except for the location of the humidification unit. Michaels discloses a humidifier is located in the oxygen concentrator after the product tank and oxygen sensor to add moisture to the oxygen primary product to replace the moisture removed by the beds (see column 8, lines 37-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the parts of the concentrator to move the humidifier before the measurement cell or sieve bed resulting in extra moisture added to the gas supply for a moisture enriched product which some of the moisture is then removed by the sieve beds.
10. Regarding claim 15, the reference Michaels discloses the claimed invention except for where the measurement cell is transparent. It is interpreted by the examiner that the sieve beds that are used in the Michaels reference is opaque in transparency for the adsorption of nitrogen and enrichment of oxygen. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device for holding the sieve bed to be of a transparent material for observation of the change in color or appearance of the physical separation material of the sieve bed or to expose the sieve bed to particular conditions before the process has started.

Allowable Subject Matter

11. Claims 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. A device for characterizing OSI materials such as the oxygen concentration of a gas supply that is run through a measurement cell that is subjected to a UV-radiation source irradiating the material within the cell is not found, taught, nor suggested in the prior art where the Michaels reference is used for the rejection above using sieve beds as the measurement cell. Furthermore, the device further comprising of a device for measuring color change within the measurement cell, sieve bed for enriching the oxygen concentration of a gas supply, is not found, taught nor suggested in the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE T. MUI whose telephone number is (571)270-3243. The examiner can normally be reached on Monday-Thursday 7-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on (571) 272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CTM

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797